



TORQ Analysis of Helpers--Production Workers to Sewing Machine Operators

INPUT SECTION:

Transfer	Title	O*NET	Filters		
From Title:	Helpers--Production Workers	51-9198.00	Abilities:	Importance Level: 50	Weight: 1
To Title:	Sewing Machine Operators	51-6031.00	Skills:	Importance Level: 69	Weight: 1
Labor Market Area:	Maine Statewide		Knowledge:	Importance Level: 69	Weight: 1

OUTPUT SECTION:

Grand TORQ:

83

Ability TORQ				Skills TORQ				Knowledge TORQ			
Level			88	Level			84	Level			77
Gaps To Narrow if Possible				Upgrade These Skills				Knowledge to Add			
Ability	Level	Gap	Impt	Skill	Level	Gap	Impt	Knowledge	Level	Gap	Impt
Visual Color Discrimination	46	12	56	No Skills Upgrade Required!				No Knowledge Upgrades Required!			
Rate Control	39	7	59								
Arm-Hand Steadiness	51	3	65								
Finger Dexterity	44	3	56								
Visualization	39	2	50								

LEVEL and IMPT (IMPORTANCE) refer to the Target Sewing Machine Operators. GAP refers to level difference between Helpers--Production Workers and Sewing Machine Operators.

ASK ANALYSIS

Ability Level Comparison - Abilities with importance scores over 50

Description	Helpers--Production Workers	Sewing Machine Operators	Importance
Arm-Hand Steadiness	48	51	65
Manual Dexterity	42	42	62
Control Precision	50	42	62
Rate Control	32	39	59
Information Ordering	37	37	56
Finger Dexterity	41	44	56
Near Vision	48	48	56
Visual Color Discrimination	34	46	56



Problem Sensitivity	39	39	53
Multilimb Coordination	44	37	53
Deductive Reasoning	37	35	50
Visualization	37	39	50
Skill Level Comparison - Abilities with importance scores over 69			
Description	Helpers--Production Workers	Sewing Machine Operators	Importance
Knowledge Level Comparison - Knowledge with importance scores over 69			
Description	Helpers--Production Workers	Sewing Machine Operators	Importance

Experience & Education Comparison					
Related Work Experience Comparison			Required Education Level Comparison		
Description	Helpers--Production Workers	Sewing Machine Operators	Description	Helpers--Production Workers	Sewing Machine Operators
10+ years	0%	0%	Doctoral	0%	0%
8-10 years	0%	0%	Professional Degree	0%	0%
6-8 years	0%	0%	Post-Masters Cert	0%	0%
4-6 years	0%	8%	Master's Degree	0%	0%
2-4 years	0%	13%	Post-Bachelor Cert	0%	0%
1-2 years	13%	9%	Bachelors	0%	2%
6-12 months	39%	11%	AA or Equiv	0%	0%
3-6 months	7%	0%	Some College	0%	8%
1-3 months	1%	5%	Post-Secondary Certificate	11%	2%
0-1 month	10%	0%	High Scool Diploma or GED	51%	12%
None	27%	51%	No HSD or GED	36%	73%
Helpers--Production Workers			Sewing Machine Operators		
Most Common Educational/Training Requirement:					
Short-term on-the-job training			Moderate-term on-the-job training		
Job Zone Comparison					
1 - Job Zone One: Little or No Preparation Needed No previous work-related skill, knowledge, or experience is needed for these occupations. For example, a person can become a cashier even if he/she has never worked before. These occupations may require a high school diploma or GED certificate. Some may require a formal training course to obtain a license.			1 - Job Zone One: Little or No Preparation Needed No previous work-related skill, knowledge, or experience is needed for these occupations. For example, a person can become a cashier even if he/she has never worked before. These occupations may require a high school diploma or GED certificate. Some may require a formal training course to obtain a license.		
Employees in these occupations need anywhere from a few days to a few months of training. Usually, an experienced worker could show you how to do the job.			Employees in these occupations need anywhere from a few days to a few months of training. Usually, an experienced worker could show you how to do the job.		

Tasks	
Helpers--Production Workers	Sewing Machine Operators
Core Tasks	Core Tasks



Generalized Work Activities:

- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
- Performing General Physical Activities - Performing physical activities that require considerable use of your arms and legs and moving your whole body, such as climbing, lifting, balancing, walking, stooping, and handling of materials.
- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Identifying Objects, Actions, and Events - Identifying information by categorizing, estimating, recognizing differences or similarities, and detecting changes in circumstances or events.

Specific Tasks

Occupation Specific Tasks:

- Attach slings, ropes, and cables to objects such as pipes, hoses, and bundles.
- Break up defective products for reprocessing.
- Change machine gears, using wrenches.
- Clean and lubricate equipment.
- Count finished products to determine if product orders are complete.
- Cut or break flashing from materials or products.
- Dump materials such as prepared ingredients into machine hoppers prior to mixing.
- Examine products to verify conformance to quality standards.
- Fold products and product parts during processing.
- Help production workers by performing duties of lesser skill, such as supplying or holding materials or tools, and cleaning work areas and equipment.
- Lift raw materials, finished products, and packed items, manually or using hoists.
- Load and unload items from machines, conveyors, and conveyances.
- Mark or tag identification on parts.
- Measure amounts of products, lengths of extruded articles, or weights of filled containers to ensure conformance to specifications.
- Mix ingredients according to specified procedures and formulas.
- Observe equipment operations so that malfunctions can be detected, and notify

Generalized Work Activities:

- Getting Information - Observing, receiving, and otherwise obtaining information from all relevant sources.
- Controlling Machines and Processes - Using either control mechanisms or direct physical activity to operate machines or processes (not including computers or vehicles).
- Handling and Moving Objects - Using hands and arms in handling, installing, positioning, and moving materials, and manipulating things.
- Inspecting Equipment, Structures, or Material - Inspecting equipment, structures, or materials to identify the cause of errors or other problems or defects.
- Communicating with Supervisors, Peers, or Subordinates - Providing information to supervisors, co-workers, and subordinates by telephone, in written form, e-mail, or in person.

Specific Tasks

Occupation Specific Tasks:

- Attach buttons, hooks, zippers, fasteners, or other accessories to fabric, using feeding hoppers or clamp holders.
- Attach tape, trim, appliques, or elastic to specified garments or garment parts, according to item specifications.
- Baste edges of material to align and temporarily secure parts for final assembly.
- Cut excess material or thread from finished products.
- Cut materials according to specifications, using blades, scissors, or electric knives.
- Draw markings or pin appliques on fabric to obtain variations in design.
- Examine and measure finished articles to verify conformance to standards, using rulers.
- Fold or stretch edges or lengths of items while sewing, in order to facilitate forming specified sections.
- Guide garments or garment parts under machine needles and presser feet to sew parts together.
- Inspect garments, and examine repair tags and markings on garments to locate defects or damage, and mark errors as necessary.
- Match cloth pieces in correct sequences prior to sewing them, and verify that dye lots and patterns match.
- Monitor machine operation to detect problems such as defective stitching, breaks in thread, or machine malfunctions.
- Mount attachments, such as needles, cutting blades, or pattern plates, and adjust machine guides according to



operators of any malfunctions.

- Operate machinery used in the production process, or assist machine operators.
- Pack and store materials and products.
- Pack food products in paper bags and boxes, and stack them in warehouses and coolers.
- Perform minor repairs to machines, such as replacing damaged or worn parts.
- Place products in equipment or on work surfaces for further processing, inspecting, or wrapping.
- Position spouts or chutes of storage bins so that containers can be filled.
- Prepare raw materials for processing.
- Read gauges and charts, and record data obtained.
- Record information such as the number of products tested, meter readings, and dates and times of product production.
- Remove products, machine attachments, and waste material from machines.
- Separate products according to weight, grade, size, and composition of materials used to produce them.
- Signal coworkers to direct them to move products during the production process.
- Start machines or equipment in order to begin production processes.
- Thread ends of items such as thread, cloth, and lace through needles and rollers, and around take-up tubes.
- Tie products in bundles for further processing or shipment, following prescribed procedures.
- Transfer finished products, raw materials, tools, or equipment between storage and work areas of plants and warehouses, by hand or using hand trucks or powered lift trucks.
- Turn valves to regulate flow of liquids or air, to reverse machines, to start pumps, or to regulate equipment.
- Unclamp and hoist full reels from braiding, winding, and other fabricating machines, using power hoists.
- Wash work areas, machines, equipment, vehicles, and products.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- attach or mark identification onto products or containers
- clean equipment or machinery
- clean rooms or work areas
- examine products or work to verify conformance to specifications

specifications.

- Perform equipment maintenance tasks such as replacing needles, sanding rough areas of needles, or cleaning and oiling sewing machines.
- Perform specialized or automatic sewing machine functions, such as buttonhole making or tacking.
- Place spools of thread, cord, or other materials on spindles, insert bobbins, and thread ends through machine guides and components.
- Position and mark patterns on materials to prepare for sewing.
- Position items under needles, using marks on machines, clamps, templates, or cloth as guides.
- Position material or articles in clamps, templates, or hoop frames prior to automatic operation of machines.
- Record quantities of materials processed.
- Remove holding devices and finished items from machines.
- Repair or alter items by adding replacement parts or missing stitches.
- Select supplies such as fasteners and thread, according to job requirements.
- Start and operate or tend machines, such as single or double needle serging and flat-bed felling machines, to automatically join, reinforce, or decorate material or articles.
- Tape or twist together thread or cord to repair breaks.
- Turn knobs, screws, and dials to adjust settings of machines, according to garment styles and equipment performance.

Detailed Tasks

Detailed Work Activities:

- adjust production equipment/machinery setup
- clean equipment or machinery
- cut or trim fabric or leather
- examine products or work to verify conformance to specifications
- install equipment or attachments on machinery or related structures
- load or unload material or workpiece into machinery
- maintain consistent production quality
- maintain production or work records
- monitor production machinery/equipment operation to detect problems
- operate sewing machine
- perform safety inspections in manufacturing or industrial setting
- read work order, instructions, formulas, or processing charts



- load or unload material or workpiece into machinery
- load, unload, or stack containers, materials, or products
- lubricate machinery, equipment, or parts
- maintain or repair industrial or related equipment/machinery
- maintain production or work records
- measure, weigh, or count products or materials
- mix paint, ingredients, or chemicals, according to specifications
- monitor production machinery/equipment operation to detect problems
- move or fit heavy objects
- operate food processing production equipment/machinery
- operate hoist, winch, or hydraulic boom
- operate metal or plastic fabricating equipment/machinery
- operate ore refining/foundry equipment/machinery
- operate packaging or banding machine or equipment
- operate pulp or paper making equipment
- operate textile production equipment/machinery
- operate woodworking equipment/machinery
- package goods for shipment or storage
- perform repetitive tasks in assembly setting
- perform safety inspections in manufacturing or industrial setting
- read work order, instructions, formulas, or processing charts
- signal directions or warnings to coworkers
- sort manufacturing materials or products
- wrap products

Technology - Examples

Data base user interface and query software

- Data entry software

Spreadsheet software

- Microsoft Excel

Word processing software

- Microsoft Word

Tools - Examples

- Adjustable wrenches

- Hand files

- Industrial platform scales

- repair tears or defects in fabrics, garments, or leather products
- sew by hand
- use hand or power tools
- use portable electric fabric cutter

Technology - Examples



- Forklifts
- Grease guns
- Claw hammers
- Handtrucks
- Power hoists
- Hydraulic booms
- Hand jacks
- Label-making machines
- Platform ladders
- Locking pliers
- Personal computers
- Planing tools
- Jackhammers
- Power drills
- Power grinders
- Power nail guns
- Power sanders
- Power saws
- Pressure wands
- Hand saws
- Phillips head screwdrivers
- Skid steer loaders
- Material-hoisting slings
- Power staple guns
- Measuring tapes
- Utility knives
- Industrial vacuum cleaners
- Hydraulic winches

Labor Market Comparison

Labor Market Comparison			
Description	Helpers--Production Workers	Sewing Machine Operators	Difference



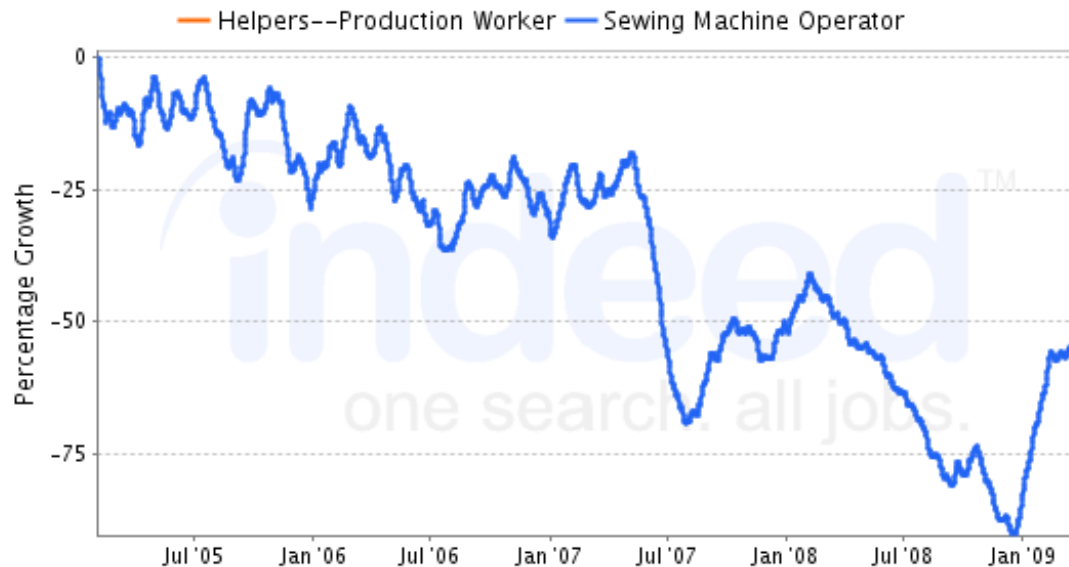
Median Wage	\$ 22,260	\$ 22,440	\$ 180
10th Percentile Wage	\$ 17,160	\$ 16,350	\$ (810)
25th Percentile Wage	N/A	N/A	N/A
75th Percentile Wage	\$ 25,210	\$ 27,200	\$ 1,990
90th Percentile Wage	\$ 30,870	\$ 31,710	\$ 840
Mean Wage	\$ 23,130	\$ 23,030	\$ (100)
Total Employment - 2007	1,490	1,080	-410
Employment Base - 2006	1,522	1,077	-445
Projected Employment - 2016	1,365	990	-375
Projected Job Growth - 2006-2016	-10.3 %	-8.1 %	2.2 %
Projected Annual Openings - 2006-2016	37	10	-27

National Job Posting Trends

Trend for Helpers--Production Workers

Trend for
Sewing
Machine
Operators

Job Trends from Indeed.com

Data from [Indeed](http://Indeed.com)

Recommended Programs

No program data for the occupation.

Maine Statewide Promotion Opportunities for Helpers--Production Workers

O*NET Code	Title	Grand TORQ	Job Zone	Employment	Median Wage	Difference	Growth	Annual Job Openings
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51-9198.00	Helpers--Production Workers	100	1	1,490	\$22,260.00	\$0.00	-10%	37
51-6031.00	Sewing Machine Operators	83	1	1,080	\$22,440.00	\$180.00	-8%	10
51-2021.00	Coil Winders, Tapers, and Finishers	83	2	90	\$31,910.00	\$9,650.00	-53%	1
51-6063.00	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	83	3	0	\$23,830.00	\$1,570.00	0%	0
51-6041.00	Shoe and Leather Workers and Repairers	80	2	90	\$25,030.00	\$2,770.00	-19%	3
51-6062.00	Textile Cutting Machine Setters, Operators, and Tenders	80	3	110	\$24,860.00	\$2,600.00	-13%	4
43-5053.00	Postal Service Mail Sorters, Processors, and Processing Machine Operators	80	2	970	\$41,950.00	\$19,690.00	-12%	10
51-2092.00	Team Assemblers	80	2	3,850	\$23,730.00	\$1,470.00	-7%	82
43-9051.00	Mail Clerks and Mail Machine Operators, Except Postal Service	80	1	490	\$23,250.00	\$990.00	-19%	13
51-4121.06	Welders, Cutters, and Welder Fitters	80	2	1,610	\$38,030.00	\$15,770.00	7%	49
51-7021.00	Furniture Finishers	80	2	70	\$28,550.00	\$6,290.00	-31%	2
51-9195.07	Molding and Casting Workers	79	2	0	\$26,980.00	\$4,720.00	7%	20
51-4121.07	Solderers and Brazers	79	2	1,610	\$38,030.00	\$15,770.00	7%	49
51-9022.00	Grinding and Polishing Workers, Hand	78	1	270	\$31,060.00	\$8,800.00	4%	5
51-3092.00	Food Batchmakers	78	2	640	\$25,410.00	\$3,150.00	-7%	14

Top Industries for Sewing Machine Operators

Industry	NAICS	% in Industry	Employment	Projected Employment	% Change
Cut and sew apparel manufacturing	315200	37.46%	87,218	36,829	-57.77%
Other textile product mills	314900	8.50%	19,797	17,782	-10.18%
Textile furnishings mills	314100	7.91%	18,422	16,690	-9.40%
Self-employed workers, primary job	000601	7.29%	16,967	18,076	6.54%
Household and institutional furniture manufacturing	337120	6.35%	14,794	12,383	-16.30%



Apparel accessories and other apparel manufacturing	315900	2.75%	6,400	4,026	-37.09%
Apparel knitting mills	315100	2.14%	4,987	2,805	-43.75%
Medical equipment and supplies manufacturing	339100	2.01%	4,674	4,781	2.29%
Other furniture related product manufacturing	337900	1.88%	4,384	4,577	4.40%
Printing and related support activities	323100	1.73%	4,029	3,192	-20.77%
Motor vehicle parts manufacturing	336300	1.48%	3,443	2,741	-20.39%
Fabric mills	313200	1.36%	3,162	2,233	-29.38%
Drycleaning and laundry services	812300	1.35%	3,133	3,133	0.01%
Clothing stores	448100	1.31%	3,053	2,973	-2.63%
Footwear manufacturing	316200	0.92%	2,134	1,000	-53.16%

Top Industries for Helpers--Production Workers

Industry	NAICS	% in Industry	Employment	Projected Employment	% Change
Employment services	561300	22.19%	120,164	142,842	18.87%
Animal slaughtering and processing	311600	5.61%	30,385	36,112	18.85%
Printing and related support activities	323100	4.49%	24,300	19,253	-20.77%
Converted paper product manufacturing	322200	3.76%	20,372	17,096	-16.08%
Plastics product manufacturing	326100	3.35%	18,157	19,247	6.00%
Bakeries and tortilla manufacturing	311800	2.61%	14,121	14,424	2.15%
Architectural and structural metals manufacturing	332300	2.49%	13,499	14,418	6.80%
Other wood product manufacturing	321900	2.45%	13,261	12,496	-5.77%
Fruit and vegetable preserving and specialty food manufacturing	311400	1.83%	9,936	9,009	-9.33%
Motor vehicle parts manufacturing	336300	1.77%	9,606	7,648	-20.39%
Coating, engraving, heat treating, and allied activities	332800	1.68%	9,101	7,459	-18.03%
Household and institutional furniture manufacturing	337120	1.32%	7,166	5,452	-23.91%
Machine shops	332710	1.30%	7,021	5,808	-17.28%
Cement and concrete product manufacturing	327300	1.17%	6,321	6,861	8.55%
Other fabricated metal product manufacturing	332900	1.15%	6,215	5,507	-11.39%